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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,223	11/12/2003	Yasuo Segawa	492322014700	3537
25227	7590	08/24/2005		
MORRISON & FOERSTER LLP 1650 TYSONS BOULEVARD SUITE 300 MCLEAN, VA 22102			EXAMINER QUINTO, KEVIN V	
			ART UNIT	PAPER NUMBER
			2826	

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/705,223

Applicant(s)

SEGAWA ET AL.

Examiner

Kevin Quinto

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 July 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 3-7 is/are allowed.
- 6) ☒ Claim(s) 8-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 25 July 2005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claims 8-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 8 recites the limitation "the first semiconductor layer" in line 12 of the claim. There is insufficient antecedent basis for this limitation in the claim.
4. The examiner has interpreted "the first semiconductor layer" to mean the first semiconductor portion.

### *Claim Rejections - 35 USC § 102*

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 8 and 9 are rejected under 35 U.S.C. 102(a, b) as being anticipated by Ozaki (JP 06-230420).

7. So far as understood in claim 8, Ozaki (JP 06-230420) discloses a device which meets the claim. Figures 1(A)-1(F) illustrate a manufacturing method of a semiconductor device which comprises providing a substrate (1). A first semiconductor portion (5, left side of the figures) and a second semiconductor portion (5, right side of the figures) are formed on the substrate (1). An insulating film (4) is provided on the first semiconductor portion and the second semiconductor portion. A gate electrode (2) is formed on the insulating film (4) so that the gate electrode (2) and the first semiconductor portion are part of a thin film transistor. A storage capacitor electrode (3) is formed on the insulating film (4) so that the storage capacitor electrode (3) and the second semiconductor portion are part of a storage capacitor. A source region (8S) and a drain region (8D) are formed in the first semiconductor portion. A metal wiring (11) is formed which connects the first semiconductor portion and the second semiconductor portion.

8. So far as understood in claim 9, an interlayer insulating film (9) is formed over the first and second semiconductor portions. A first contact hole is formed in the interlayer insulating film (9) in order to provide contact with the first semiconductor portion. A second contact hole is formed in the interlayer insulating film (9) in order to provide contact with the second semiconductor portion.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ozaki (JP 06-230420) in view of Shopbell (USPN 6,055,460) and further in view of Farber et al. (USPN 6,187,684 B1).

11. So far as understood in claim 11, Ozaki does not disclose the use of ion implantation to form the source (8S) and drain (8D) regions. However ion implantation is well known in the art. Shopbell (USPN 6,055,460) discloses that ion implantation doping has the benefit of taking place in a clean environment (column 6, lines 35-38). Farber et al. (USPN 6,187,684 B1, hereinafter referred to as the "Farber" reference) discloses that fabrication in a clean environment is desired in the semiconductor art (column 2, lines 23-26). In view of Shopbell and Farber, it would therefore be obvious to utilize ion implantation as the means of forming the source and drain regions.

#### ***Allowable Subject Matter***

12. Claims 1 and 3-7 are allowed.

13. The following is a statement of reasons for the indication of allowable subject matter: the examiner is unaware of any prior art which suggest or renders obvious a semiconductor device which has a thin film transistor and a capacitor constructed such that that the thin film transistor and the capacitor each have a component made of semiconductor film, these films being two spaced apart bodies, formed on a substrate

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such that these films are electrically coupled together by a metal wiring which itself is connected to a pixel electrode.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Quinto whose telephone number is (571) 272-1920. The examiner can normally be reached on M-F 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306 but starting on July 15, 2005, the new fax phone number will be 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KVQ

A handwritten signature in black ink, consisting of a stylized 'K' followed by a 'V' and a 'Q', with a long horizontal stroke extending to the right.